

~~~~~

## On *Ad hoc* Morphology

Yury Lander, yulander@yandex.ru

Higher School of Economics / Institute of Oriental Studies RAS

### 1. Introduction

#### Frequent (yet not uncontroversial) assumptions:

- Morphology is usually divided into derivation and inflection.
    - The canonical derivation is responsible for making lexemes – ideally, words as elements of shared lexicon.
    - The canonical inflection is responsible for wordforms, whose formation may be represented as realizational, realizing functions from lexemes to wordforms.
- NB: The canonical inflection and the canonical derivation are commonly assumed to be just two poles, with many phenomena being intermediate between them (Plank 1994).

#### The “third type”?:

#### insights from some agglutinative languages with complex morphology

- Muysken (1986; 1988) for Quechua languages: lexical morphology (derivation) vs inflectional morphology vs syntactic morphology
- (1) a dialect of Quechua close to Cuzco Quechua  
yacha-ya-chi-paya-wa-n  
know-[AUG]<sub>LEXICAL</sub>-[CAUS-FREQ]<sub>SYNTACTIC</sub>-[10-3]<sub>INFLECTIONAL</sub>  
‘He always teaches me.’ (Muysken 1988: 266)
- de Reuse (2006; 2009) for Eskimo languages: derivation vs inflection vs productive ~~non-concatenation~~ vs syntax. Table from de Reuse 2009: 22:

|                                                            | Inflection | (Nonproductive)<br>derivation | PnC | Syntax |
|------------------------------------------------------------|------------|-------------------------------|-----|--------|
| [1] Productive?                                            | yes        | no                            | yes | yes    |
| [2] Recursivity possible?                                  | no         | no                            | yes | yes    |
| [3] Necessarily concatenative?                             | no         | no                            | yes | yes    |
| [4] Variable order of elements possible in some instances? | no         | no                            | yes | yes    |
| [5] Interaction with syntax possible?                      | yes        | no                            | yes | yes    |
| [6] Lexical/phrasal category changing possible?            | no         | yes                           | yes | yes    |

This talk: Describing this kind of morphology using data from Circassian languages.

NB: Not discussing compounds and productive incorporation, even though they are certainly relevant.

## 2. Circassian languages and what is thought about them

- Northwest Caucasian
  - Abkhaz-Abaza
  - Ubykh
  - **Circassian** (also known as Adyghe)
    - **West Circassian** (also known as Adyghe)
    - **East Circassian / Kabardian**

### Basic characteristics:

- ergativity (at least in morphology but to some extent also in syntax)
- left-branching tendencies in word order
- polysynthesis

(2) sə-qə-ze-re-ŝha-pə-rə-wəḵ<sup>w</sup>ereje-č'ə-ž'ə-ḡa-ḡe-r                      Temirgoi West Circassian  
1SG.ABS-DIR-REL.IO-INS-head-LOC-INS-fall-go.out-RE-PST-PST-ABS  
'that I had turned a somersault' (at least 13 morphemes)

(3) sə-qə-ze-re-ŝha-pə-rə-b-ḡe-wəḵ<sup>w</sup>ereje-č'ə-ž'ə-ḡa-ḡe-r                      Temirgoi West Circassian  
1SG.ABS-DIR-REL.IO-INS-HEAD-LOC-INS-2SG.ERG-CAUS-fall-go.out-RE-PST-PST-ABS  
'that you had made me turn a somersault' (at least 15 morphemes)

(4) Besleney Kabardian  
zə-ḡə-ze-rə-ze-pə-rə-w-jə-mə-ḡe-ḡe-ze-ž'ə-fə-ḡ-a-te-r-a-te-me  
RFL.ABS-DIR-REL.IO-FACT-RFL.IO-LOC-TRANS-2SG.IO-3SG.ERG-NEG-CAUS-CAUS-turn-RE-POT-PST-PST-RS-  
PRED-PST-RS-COND  
'if it was exactly so that s/he had not been able to make you turn back'  
(constructed by speakers)

- **Important assumption:**

The existence of the “morphology vs syntax” contrast.

*Evidence:* morphological structure, morphophonological rules, etc.

*More evidence:* Grammatical morphemes and their combinations, unlike words and phrases, are not recognized by speakers in isolation.

- The *Ad hoc* morphology hypothesis:

Morphologically complex words are often constructed in the course of speech.

(Gerasimov & Lander 2006; Lander & Gerasimov (always in prep.); Korotkova & Lander 2010; Lander & Arkhangelskiy 2015)

### 3. Evidence for the Ad hoc morphology hypothesis

- Acknowledgment by speakers:
  - A comment to the observation on specific pronunciation (to be discussed later):  
“Don’t be surprised, people are just looking for the prefixes which they need.”
- Much variation observed among speakers in constructing, interpreting and evaluating complex wordforms, which suggests that such forms do not belong to their shared vocabulary.

Gerasimov & Lander 2006; Lander & Gerasimov (always in prep.): initial observations  
Lander & Arkhangelskiy 2015: an experiment, whereby speakers were asked to construct complex forms with up to three applicatives

- (4) pol’še-m      ajdemər      aslan      Ø-š’ə-Ø-de-zewa-Ɂ      Temirgoi West Circassian  
Poland-OBL      Aydamyr      Aslan      [3SG.IO-LOC]-[3SG.IO-COM]-fight-PST  
‘Aydamyr fought in Poland together with Aslan.’

- speakers differ in their ability to construct complex forms:  
some speakers construct forms with multiple applicatives easily, while others show difficulties when constructing forms with two and more applicatives
- speakers differ in the way they construct complex forms:  
speakers may prefer different affix order,  
some speakers may even consider infelicitous the order which is preferred by other speakers

Speaker A:      LOC-COM-BEN      vs.      \*LOC-BEN-COM  
Speaker B:      ?LOC-COM-BEN      vs.      LOC-BEN-COM

- speakers differ in the way they use some affixes:

The suffix -š’ə ‘back, again’ in the medial function (2a) may be obligatory or optional;  
for some speakers but not for others the use of this suffix implies the reflexive function ‘again’ (2b):

- (5) ə-pse      ə-ʔaqəl      je-zewe-š’ə-š’tə-Ɂ      Temirgoi West Circassian  
3SG.PR-soul      3SG.PR-mind      DAT-fight-RE-AUX-PST  
a. ‘His/her soul was fighting with his/her own mind.’  
b. ‘His/her soul was fighting with his/her mind again.’

- speakers show high variation in affix order, which does not always have a semantic motivation:

- (6) a. sə-[Ø-də]-[zə-**f**e]-təs-a Besleney Kabardian  
 1SG.ABS-[3SG.IO-COM]-[RFL.IO-MAL]-sit.down-PST  
 b. sə-[z-[Ø-de]-**f**e]-təs-a  
 1SG.ABS-[RFL.IO-[3SG.IO-COM]-MAL]-sit.down-PST  
 ‘I sat down with him against my own will.’ (Ponomareva 2013)

- possible pauses interrupting words (studied together with Vadim Kimmelman; cf. Evans et al. 2008 on Dalabon)

- (7) z-jə-... -thač’ə-n-wə k<sup>w</sup>-a Besleney Kabardian  
 RFL.ABS-3SG.ERG... -wash-MOD-ADV go-PST  
 ‘He went to wash himself.’

NB: All pauses observed in Besleney Kabardian occur between morphemes.

#### 4. (More) indirect evidence

- In theory, the number of wordforms in Circassian languages is infinite.
  - Recursion: Morphological operations can repeat within a single word (cf. Lander, Letuchiy 2010)

- (8) a-r ɣ<sup>w</sup>ež’ə-š<sup>w</sup>a-š<sup>w</sup> Temirgoi West Circassian  
 that-ABS yellow-SEEM-SEEM  
 ‘It is paler than yellow.’ (Korotkova & Lander 2010: 308)

- “Crazy” forms, which are more expected if they are constructed in the course of speech:

- (9) š’ə-t-t-t Besleney Kabardian  
 LOC-1PL.ERG-dig-IPF  
 ‘we were digging it there’

- Fillers / placeholders used in cases of hesitation may take any morphology. The same holds for question roots.

- (10) s-we-ke-məst Besleney Kabardian  
 1SG.ERG-DYN-CAUS-FILLER  
 ‘I make him/her... what’s-its-name.’

- (11) sə-b-ke-xetə-š’t-a ?  
 1SG.ABS-2SG.ERG-CAUS-who-FUT-Q  
 ‘What will you turn me into?’

NB: Probably forms like (11) are only used in echo-questions.

- Weak selectivity.

In Circassian languages, much of the morphology can be added to all kinds of bases (nominal, verbal, and even postpositional...)

- (12) mat'emat'əkə-m-č'e    te    t-jə-č'elejekež'a-**ve**-r    Temirgoi West Circassian  
 mathematics-OBL-INS    we    1PL.PR-POSS-teacher-PST-ABS  
 zeč'e-m    a-nah    deɁ<sup>w</sup>ə-**Ɂ**  
 all-OBL    3PL.PP-COMP    good-PST  
 'Our former teacher of math was the best.'

- (13) mə    aχš'e-xe-r    a-š'    peja-**ve**    Temirgoi West Circassian  
 this    money-PL-ABS    that-OBL    for-PST  
 'This money was for him/her.'

- "Nominal tense" is often found exactly in polysynthetic languages (cf. Nordlinger, Sadler 2004)
- Polysynthetic languages often are discussed in the context of weak distinction between parts-of-speech.
- Some polysynthetic languages display the ellipsis of roots, which suggests that their speakers do not consider the relevant wordforms indivisible units.

- (14) Inuktitut (Eskimo) (Swift, Allen 2002)
- Anaana qajurturumajunga.  
 anaana    qajuq-tuq-guma-junga  
 mother    soup-CONSUME-WANT-PTCP:1SG.S  
 'Mother, I want to have soup.'
  - Nialirqutit siaru.  
 -niaq-liq-vutit    siaru  
 -TODAY.FUT-ING-IND:2SG.S    later  
 'You will [have soup] later today.'

- The specifics of pronunciation: syllable-by-syllable or morpheme-by-morpheme?

## 5. Supporting factors

- Agglutination (unproblematic linear segmentation of wordforms, the lack of allomorphic variation)
  - Cf. the simplification of grammar / the preference for agglutinating patterns with less assimilated roots.

E.g., in Standard Indonesian

— the derivation of verbs by means of the prefix *meN-* in some contexts is normally accompanied by morphophonological changes which hide the morpheme border:

— when *meN-* is added to some borrowed roots, the morpheme border is preserved:

- Layered morphology (where the place of an affix is determined by its semantic contribution), as opposed to template morphology (where the place of an affix is fixed).

- NB: Strictly speaking, some features listed earlier may correlate with the features listed in this section rather than with the construction of wordforms in the course of speech.

- (16) Udi (Levin 2013)
- |            |        |            |       |                    |                       |
|------------|--------|------------|-------|--------------------|-----------------------|
| lena       | χunči  | gele       | “vaj  | p:ur-i=z”-aχun     | oša                   |
| Lena       | sister | much       | [INTJ | die-AOR = 1SG]-ABL | then                  |
| azrejil-i  |        | ki-j-eχun  |       |                    | čar=e=k:i             |
| Azrail-GEN |        | hand-O-ABL |       |                    | finish = 3SG = ST-AOR |
- ‘After Sister Lena cried a lot “Oh! I’m dying!”, she (nonetheless) escaped from Azrail.’

## 6. The theoretical place of ad hoc morphology

- (17) pr'ez'id'entə-r      a-fe-g<sup>w</sup>əʃ<sup>w</sup>a-ɤ      Temirgoi West Circassian  
 president-ABS      3PL.IO-BEN-happy-PST  
 'The president congratulated them (lit., was happy for them).'

- Hence the same affixes may function as means of derivation.
- In fact, in Standard Average European languages, derivational means may be used for constructing words in the course of speech, but this is more marginal than in polysynthetic languages.
- Hence no strict contrast between AHM and derivation.

○ AHM may in principle express paradigmatic grammatical categories.

Partial list of tenses in West Circassian according to Rogava & Kerasheva (1966)

|                 |                                                       |                      |
|-----------------|-------------------------------------------------------|----------------------|
| Past            | ḱ <sup>w</sup> a-ḃe                                   | ‘s/he went’          |
| Future I        | ḱ <sup>w</sup> e-š’t                                  | ‘s/he will go’       |
| Future II       | ḱ <sup>w</sup> e-n                                    | ‘s/he will go’       |
| Remote past     | ḱ <sup>w</sup> e-ḃa-ḃe                                | ‘s/he had gone’      |
| Hypothetic past | ḱ <sup>w</sup> e-ḃe-š’t                               | ‘probably s/he went’ |
| Conjunctive II  | ḱ <sup>w</sup> e-nə-ḃe /<br>ḱ <sup>w</sup> e-nə-ḃa-ḃe | ‘s/he would go’      |

Occasional three past suffixes within a single wordform:

(18) ze-re-z-e-zewe-ḃe-ḃe-pa-ḃe-xe-m-č’e  
 REL.IO-FACT-REC.IO-DAT-fight-PST-PST-ASSERT-PST-PL-OBL-INS  
 λə-žə-m ə-g<sup>w</sup> xe-č’ə-ḃ  
 man-old-OBL 3SG.PR-heart LOC-go.out-PST  
 ‘The old man was disappointed that they had fought with each other.’

- No strict contrast between AHM and inflection.
- Hence it is likely to speak of the contrast between different types of functioning of morphology rather than of the contrast between inflection, derivation and the “third type”.
  - Possibly this contrast is related to the contrast between rule-based vs analogue-based morphological constructions
  - Languages (and presumably parts of grammar) differ in how actively they use the construction of words in the course of speech.

## References

- Arkhangelskiy, T. & Yu. Lander. 2015. Producing polysynthetic verb forms in West Circassian (Adyghe): an experimental study. *Working papers by NRU HSE. Series WP BRP “Linguistics”*. No. 23/LNG/2015.
- de Reuse, W.J. 2006. Polysynthetic language: Central Siberian Yupik. In K. Brown (ed.), *The Encyclopedia of Language and Linguistics*. 2<sup>nd</sup> edition. Vol. 9. Oxford: Elsevier. P. 745—748.

- de Reuse, W.J. 2009. Polysynthesis as a typological feature. An attempt at a characterization from Eskimo and Athabaskan perspectives. In M.-A. Mahieu, N. Tersis (eds), *Variations on Polysynthesis: the Eskaleut Languages*. Amsterdam: John Benjamins. P. 19—34.
- Evans, N. 2003. *Bininj Gun-wok: A pan-dialectal grammar of Mayali, Jinwinjku and Kune*. 2 vols. Canberra: Pacific Linguistics.
- Evans, N., J. Fletcher, & B. Ross. 2008. Big words, small phrases: Mismatches between pause units and the polysynthetic word in Dalabon. *Linguistics* 46(1): 89—129.
- Gerasimov, D. & Yu. Lander. 2006. Вариативность и адыгейский язык (особенности полевой работы в условиях полисинтетизма). II Международный симпозиум по полевой лингвистике. Материалы. М. С. 39—43.
- Korotkova, N. & Yu. Lander. 2010. Deriving affix order in polysynthesis: evidence from Adyghe. *Morphology* 20(2): 299—319.
- Lander, Yu. & D. Gerasimov. Adyghe variations. Unpublished ms., always in prep.
- Lander, Yu. & A. Letuchiy. 2009. Kinds of recursion in Adyghe morphology. In: H. van der Hulst (ed.), *Recursion and Human Language*. Berlin: Mouton de Gruyter. P. 263—284.
- Levin, I. S. 2013. Практикум глоссирования текстов на удинском языке: текст М. Кечаари "Ваън кӀацӀеценан ки". Курсовая работа, НИУ ВШЭ.
- Muysken, P. 1986. Approaches to affix order. *Linguistics* 24(3): 629—643.
- Muysken, P. 1988. Affix order and interpretation: Quechua. In: M. Everaert et al. (eds), *Morphology and Modularity*. Dordrecht: Foris. P. 259—279.
- Nordlinger, R. and L. Sadler. 2004. Nominal tense in crosslinguistic perspective. *Language* 80(4): 776-806.
- Plank, F. 1994. Inflection and derivation. In: R.E. Asher (ed.), *The Encyclopedia of Language and Linguistics*, Oxford, etc.: Pergamon, vol. 3, 1671-1678.
- Ропомарева, М. А. 2013. Вопросы функционирования объектной деривации в абхазо-адыгских языках. Дипломная работа, Институт лингвистики РГГУ.
- Rogava, G. V. & Z. I. Kerasheva. 1966. *Грамматика адыгейского языка*. Краснодар, Майкоп: Краснодарское книжное изд.
- Swift, M.D. & S.E.M. Allen. 2002. Verb base ellipsis in Inuktitut conversational discourse. *International Journal of American Linguistics* 68(2): 133–156.